Complete Summary

GUIDELINE TITLE

Diagnostic imaging in the assessment of metastatic and recurrent ovarian cancer.

BIBLIOGRAPHIC SOURCE(S)

Cancer Care Ontario (CCO). Diagnostic imaging in the assessment of metastatic and recurrent ovarian cancer. Toronto (ON): Cancer Care Ontario (CCO); 2006 Apr 7. 14 p. [15 references]

GUIDELINE STATUS

This is the current release of the guideline.

Please visit the Cancer Care Ontario Web site for details on any new evidence that has emerged and implications to the guidelines.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Metastatic and recurrent ovarian cancer

GUIDELINE CATEGORY

Diagnosis
Evaluation

CLINICAL SPECIALTY

Obstetrics and Gynecology
Oncology
Radiology

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

- To provide some initial guidance to Ontario health care providers and planners on the use of cross-sectional diagnostic imaging technology for patients with metastatic or recurrent ovarian cancer
- To promote evidence-based practice, provide guidance to clinicians about which imaging techniques are the most appropriate to use in the workup and management of their patients, provide information that is useful to those charged with planning for the number of imaging machines needed for patients with cancer in Ontario, and be used to monitor the use of imaging modalities in patients with cancer

TARGET POPULATION

Patients with metastatic and recurrent ovarian cancer

INTERVENTIONS AND PRACTICES CONSIDERED

1. Computed tomography (CT)
2. Magnetic resonance imaging (MRI)
3. Ultrasound

MAJOR OUTCOMES CONSIDERED

- Disease recurrence
- Quality of life
- Survival
- Frequency of true- and false-positive tests
- Sensitivity and specificity of diagnostic tests
- Positive and negative predictive value

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Literature Search and Evidence Appraisal Strategies

English language evidence published between 1980 and 2004 was searched through MEDLINE, EMBASE, and the Cochrane Databases of Systematic Reviews and Abstracts of Reviews of Effects. Clinical practice guidelines, meta-analyses, systematic reviews, and trials reporting on sensitivity and specificity were sought. Search strategies were modified for each database and disease site (see Appendix A in the original guideline document).

Eligibility Criteria

Inclusion

Studies were included if they satisfied all of the following criteria:

- Included patients with confirmed ovarian cancer
- Evaluated computed tomography (CT), magnetic resonance imaging (MRI) or ultrasonography
- Described an objective diagnostic standard
- Reported data for disease recurrence, quality of life, survival, frequency of true- and false-positive tests for extent of disease, or sensitivity, specificity, positive predictive value or negative predictive value to detect distant metastases
- Were randomized trials, comparative cohort studies, case series (prospective or retrospective) with more than 12 consecutive patients, meta-analyses (published in English after 1998) of data from randomized trials, comparative cohort studies or case series, or evidence-based clinical practice guidelines

Exclusion

Letters, editorials, and meeting abstracts were not included.

NUMBER OF SOURCE DOCUMENTS

A total of ten papers met the inclusion criteria and were obtained for review.

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus (Committee)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

In 2003, Cancer Care Ontario (CCO) established a small working panel, the Diagnostic Imaging Panel, consisting of medical, radiation, and surgical oncologists, diagnostic radiologists, and methodologists, to review guidelines published during the last five years on the use of cross-sectional imaging in oncology. After examining documents from nineteen guideline developers, the panel concluded that the available guidelines did not focus on the particular issues of interest here. Therefore, the panel decided to review the primary research and develop recommendations for Ontario on the use of computed tomography (CT), magnetic resonance imaging (MRI), and ultrasound (US) for any additional staging, assessment of tumour response during active treatment, and follow-up for patients with six types of cancer: lymphoma, breast cancer, colorectal cancer, prostate cancer, lung cancer, and ovarian cancer.

A systematic review of the literature identified few randomized studies to provide guidance on the use of cross-sectional imaging in the management of patients with cancer; therefore, it was decided to also include cohort studies and case series reports in the evidence review and incorporate expert opinion in the development of the recommendations. The initial selection and summary of relevant evidence was completed by methodologists at the Program in Evidence-Based Care in consultation with the clinical experts from the Diagnostic Imaging Panel (see Section IV in the original guideline document).

The reviews served as the evidentiary foundation to inform the deliberation of clinical experts. Formal and informal consultations with radiologists was facilitated by Dr. Anne Keller, diagnostic imaging representative of the CCO Clinical Council, and undertaken with members who participated in the provincial MRI and CT Wait Times Strategy Expert Panel and the CCO Diagnostic Imaging Panel. In addition, consultations with oncologists were undertaken, mainly through the relevant disease site groups of CCO's Program in Evidence-Based Care. Through these consultations emerged the recommendations, which are presented in the format developed by the Canadian Association of Radiologists (see Section VI in the original guideline document).

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

External Peer Review
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Expert Consultation

The draft report, with recommendations developed by a small panel of experts in oncology and radiology, was distributed with a 4-item survey in March 2006 for review as part of an external consultation process to a broader group of Ontario radiologists and oncologists. The external consultation included the 15 members of the provincial Gynecology Cancer Disease Site Group and 23 other Ontario health care providers. Among the eight respondents (21%), which included two Gynecology Cancer Disease Site Group members, two radiologists, two obstetricians, and two other clinicians, seven completed the report survey, and two of these respondents provided written comments. An additional respondent provided written feedback only. Results appear below in Table 2 in the original guideline document.

Report Approval Panel Feedback

The feedback from the Report Approval Panel (RAP) was an acknowledgement that included recommendations are principally based on consensus and that the methods involved in the consensus process is unclear. Also, the role of any diagnostic testing in follow-up is not provided. Adding some information on follow-up would help to make the document more helpful in assisting non-experts, promoting uniformity among experts, and for assisting those responsible for determination of resource needs.

The authors added information concerning follow-up into the document to address this concern.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

These recommendations were developed by radiology and oncology experts in Ontario and are informed by research evidence and clinical expertise.

Clinical/Diagnostic Problem	Investigation	Recommendation (Grade)	Comment	Band*
Local Staging	Computed tomography (CT)	Indicated (primary)	Best modality to stage abdomen and pelvis concurrently	III
	Magnetic resonance imaging (MRI)	Indicated (supplementary)	Use when: 1. CT contraindicated. 2. Adnexal	0

Clinical/Diagnostic Problem	Investigation	Recommendation (Grade)	Comment	Band*
			lesion detected by US or CT needs additional characterization. 3. Extent of local invasiveness needs better delineation.	
	Ultrasound (US)	Not indicated	While many adnexal lesions are initially detected by US, staging is limited by limited field of view and bowel gas	0
Recurrence	CT	Indicated (primary)	See peritoneal metastases (recurrence usually in peritoneal cavity and retroperitoneum)	IV
	MRI	Indicated (supplementary)	See peritoneal metastases	0
	US	Not indicated	See peritoneal metastases	0
Peritoneal Metastases	CT	Indicated (primary)	See suggested protocol	IV
	MRI	Indicated (supplementary)	Use when: 1. CT contraindicated (e.g., contrast allergy) 2. Highest sensitivity needed (CA 125 positive but CT negative)	0
	US	Not indicated	Sensitivity limited by bowel gas Limited reproducibility	0
Follow-up	Decisions regarding follow-up imaging must be done on a patient by patient basis			

*Band classification of the typical effective doses of ionizing radiation from common imaging procedures

Band	Typical effective dose (mSv)	Examples
0	0	US, MRI
I	Less than 1	Chest x-ray (CXR), XR limb, XR pelvis
II	1 to 5	Intravenous urography (IVU), XR lumber spine, nuclear medicine (NM) (e.g., skeletal scintigram), CT head and neck
III	5 to 10	CT chest or abdomen, NM (e.g., cardiac)
IV	More than 10	Extensive CT studies, some NM studies (e.g., some positron emission tomography [PET])

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The recommendations are supported by case series.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate use of diagnostic imaging in the assessment of metastatic and recurrent ovarian cancer

POTENTIAL HARMS

Not stated

CONTRAINDICATIONS

CONTRAINDICATIONS

Computed tomography (CT) is contraindicated when the patient has a contrast allergy.

QUALIFYING STATEMENTS

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Care has been taken in the preparation of the information contained in this document. Nonetheless, any person seeking to apply or consult the

recommendations in this report is expected to use independent medical judgment in the context of individual clinical circumstances or seek out the supervision of a qualified clinician. Cancer Care Ontario makes no representation or guarantees of any kind whatsoever regarding their content or use or application and disclaims any for their application or use in any way.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Apr 7

GUIDELINE DEVELOPER(S)

Program in Evidence-based Care - State/Local Government Agency [Non-U.S.]

GUIDELINE DEVELOPER COMMENT

The Program in Evidence-based Care (PEBC) is a Province of Ontario initiative sponsored by Cancer Care Ontario and the Ontario Ministry of Health and Long-Term Care.

SOURCE(S) OF FUNDING

Cancer Care Ontario
Ontario Ministry of Health and Long-Term Care

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

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GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Cancer Care Ontario Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Browman GP, Levine MN, Mohide EA, Hayward RSA, Pritchard KI, Gafni A, et al. The practice guidelines development cycle: a conceptual tool for practice guidelines development and implementation. J Clin Oncol 1995;13(2):502-12.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on October 29, 2006. The information was verified by the guideline developer on November 24, 2006.

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